

CLAIMS

I Claim:

1. A moisture sensor to be inserted into the soil of a plant, comprising:
a first platform;
conductive traces disposed on the first platform; and
a processor coupled to the conductive traces and configured to measure an electrical voltage across the conductive traces and to calculate the moisture in the soil of the plant.
2. The moisture sensor of Claim 1 wherein the first platform is a circuit board.
3. The moisture sensor of Claim 2 wherein the conductive traces are disposed on a first surface of the circuit board and on a second surface of the circuit board.
4. The moisture sensor of Claim 1 further comprising a porous member coupled to the first platform and arranged to facilitate moisture transfer from the soil to the conductive traces.
5. The moisture sensor of Claim 4 wherein the first platform defines an anchor; and wherein the porous member is mounted to the anchor.

6. The moisture sensor of Claim 4 further comprising a shaft housing coupled to the first platform and adapted to facilitate moisture transfer from the soil to the conductive traces.

7. The moisture sensor of Claim 6 further comprising a shaft tip coupled to the shaft housing and adapted to perforate the soil upon the insertion of the moisture sensor into the soil.

8. The moisture sensor of Claim 1 further comprising a second platform; wherein the processor is disposed on the second platform.

9. The moisture sensor of Claim 8 further comprising an output device disposed on the second platform and connected to the processor.

10. The moisture sensor of Claim 9 wherein the output device is a wireless transmitter.

11. The moisture sensor of Claim 8 further comprising a base housing coupled to the second platform and adapted to protect the second platform.

12. The moisture sensor of Claim 11 further comprising a shaft housing coupled to the first platform and adapted to facilitate moisture transfer from the soil to the conductive traces.

13. The moisture sensor of Claim 12 further comprising a connector adapted to removably connect the base housing and the shaft housing.

14. The moisture sensor of Claim 13 wherein the connector is formed separate from the shaft housing and the base housing.

15. The moisture sensor of Claim 13 wherein the first platform, the second platform, and the connector are configured to allow connection between the conductive traces and the processor upon the connection of the base housing and the shaft housing.

16. A method of providing a moisture sensor to be inserted into the soil of a plant, comprising the following steps:

providing a first series of shaft units, each shaft unit including a first platform, conductive traces disposed on the first platform, and a shaft housing coupled to the first platform and adapted to facilitate moisture transfer from the soil to the conductive traces;

providing a second series of shaft units, each shaft unit including a first platform, conductive traces disposed on the first platform, and a shaft housing coupled to the first

platform and adapted to facilitate moisture transfer from the soil to the conductive traces, wherein the shaft housings of the first series of shaft units have a different cross-section than the shaft housings of the second series of shaft units;

providing a series of base units, each base unit including a second platform, a processor disposed on the second platform and configured to measure an electrical voltage across the conductive traces and to calculate the moisture in the soil of the plant, and a base housing coupled to the second platform and adapted to protect the second platform; and

providing a series of connectors, each connector selectively adapted to removably connect any base housing from the series of base units and any shaft housing from the first series of shaft units and to removably connect any base housing from the series of base units and any shaft housing from the second series of shaft units.

17. The method of Claim 16, wherein the series of connectors are formed separate from the first series of shaft units, from the second series of shaft units, and from the series the base units.